Vol. 67, pp. 235-238

PROCEEDINGS

November 15, 1954

## OF THE

**BIOLOGICAL SOCIETY OF WASHINGTON** 

## A NEW JAY FROM MEXICO

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A recently collected series of blue-crested jays of the species, Cyanocitta stelleri, from Xichu in extreme northeastern Guanajuato nearly completes the last segment of the rim of a circle (about 280 miles in diameter), marked by pockets of breeding blue-crests. Within this circle are several groups of black-crested jays, apparently isolated from the vast habitat of black-crests of northwestern Mexico and western United States. The local habitats of the blue-crests range in altitude from approximately 5000 feet to 8500 feet, whereas habitats of the black-crests within the circle, located chiefly on the higher mountain peaks (Toluca, Ajusco, Tetela del Volcan, Ixtaccihuatl and Popocatepetl) range up to as high as 13000 feet. The difference in altitude of the two groups may or may not be significant. Outside of the circle, there extends a range of black-crests in the northwest from Alaska to southern Durango which is matched to the south of the circle by a range of blue-crests from Guerrero, México to the highlands of Nicaragua.

The known states around the rim of the circles, in which our collection of 80 specimens of blue-crests have been taken, beginning at the west, are west-central and eastern Michoacán, northeastern Guanajuato, Hidalgo, Veracruz (Mirador and La Puerta—31 miles by road southwest of the town Orizaba), Puebla and central Guerrero (Cuapongo, Chilpancingo and Cerro Teotepec at 11,500 feet). To complicate this abnormal circular distribution, apparent intergrades, blue and black-crests, have been collected at the same localities, notably at Cofre de Perote north of Mt. Orizaba, Veracruz and at La Puerta, 31 miles S.W. by road from the town of Orizaba, Veracruz. Considering the blue-crest populations alone, the palest and lightest blue birds are found at the north (Zichu, Guanajuato) and at the south (Honduras and Chiapas, Mexico), whereas the dark race, darker than either coronata from Guanajuato to the north or the western rim of the "circle" in Michoacán.

The loss of the type of the blue-crest, described as *Garrulus coronatus* Swainson is unfortunate. The type locality has been designated twice, namely by Brodkorb (Auk, 61, 1944, 403) as Real del Monte, Hidalgo; and second by Davis (Auk, 62, 1945,281) as the "vicinity of the Cofre de Perote," Veracruz. Aldrich (Proc. Biol. Soc. Wash., 57, June 28,

25—Proc. BIOL. Soc. WASH., VOL. 67, 1954 (235)

## 236 Proceedings of the Biological Society of Washington

1944, 23), who saw Dr. Davis' M.S. before publication, accepts Davis' reasoning as "justified." Whichever decision is preferred, the birds from these two areas, both north of Mt. Orizala, are similar. Our four April individuals from Xichu, Guanajuato are somewhat paler above and below, but may be tentatively referred to coronata. South of Mt. Orizaba we find several areas of intergrades, such as the one at La Puerta, mentioned above, where both blue-crests and black-crests (azteca) are found. Our series of 16 breeding May blue-crests from 11,500 feet on Cerro Tectepee in central Guerrero represent an undescribed dark race, darker than either coronata from Guanajuato to the north or ridgwayi from Chiapas to the south, but lighter than purpurea of west central and eastern Michoacán, its nearest race geographically. It is this race, which I describe herewith:

## Cynanocitta stelleri teotepecensis subsp. nov.

Type.—Male adult in breeding plumage; number 45899, collection of Robert T. Moore, Occidental College; Cerro Teotepee, Sierra Madre del Sur, Guerrero, México; altitude 11,500 feet; May 26, 1947; collected by Chester C. Lamb.

Subspecific characters.—Differs in breeding plumage from Cyanocitta stelleri purpurea Aldrich of west-central Michoacá in having white throat patch much larger and always present; crest, particularly posterior portion, much bluer; back much bluer, less blackish; underparts much brighter, less purplish blue; lower throat blue, less purplish; rump lighter blue. Differs from C. s. ridgwayi of Chiapas and Guatemala. in having white on lower eyelid more restricted, often absent; crest, particularly posterior portion, much darker blue; back darker, less Differs to a great degree from the black-crest, C. s. axteca of bluish. the state of México in having blue colored crests, instead of black; and purplish blue backs instead of blackish gray. Differs from the Bluecrest, C. s. coronata of "the vicinity of Cofre de Perote," as well as the birds of Hidalgo and Guanajuato, in being much darker both above and below. The birds immediately south and southwest of Mt. Orizaba consist of such a mixture of black-crests and blue-crests that no comparison is possible, except that *teotepecensis* is darker than either in its blue colors.

Measurements.—Measurements are not significantly different from the other races, with which I have compared teotepecensis above.

Range.—Teotepecensis expresses its characters best in the series of 8 males and 8 females in our collection from the 11,500 foot altitude on Cerro Teotepec, reputedly the highest mountain in the Sierra del Sur of Guerrero, which is not shown on most maps, but is approximately 40 miles in an air-line west of Chilpancingo and 25 miles northwest of San Vicente de Benitez. In his journal Chester C. Lamb estimates the altitude of the highest peak as 12,150 feet above sea level. Birds of localities at lower altitudes in Central Guerrero from 5,000 to 7,000 feet in elevation (Chilpancingo, Cuapongo, Omilteme) are somewhat paler in coloration, but nearer to teotepecensis than to any other race.

*Remarks.*—It is important in this species to compare individuals of the same approximate period of molt. The entire topotypical series of *teotepccensis* was secured in the breeding season during the month of May, a May 22nd female having large eggs, but the breeding season in the species extends from April to July. I was fortunate to have specimens of this period from every race compared above. We also have a very large series of birds in fresh plumage from late September to March, as well as breeding individuals, from the lower mountain areas of Guerrero so that comparisons of breeding and winter plumage birds of all races could be made. The chief effect of wear in all races of the species *stelleri*, is most apparent on the back, which changes to brownish gray in the black-crests and to brownish purple in the blue-crests.

My thanks are extended to Dr. Herbert Friedmann and the United States National Museum for the loan of the topotypical series (except for the type) of both breeding and winter plumage birds of *C. s. purpurea*, which was employed by Dr. Aldrich in describing this race. Dr. Friedmann also forwarded two critical specimens of *coronata* from Mirador and Las Vigas, Veracruz, to supplement our own from the same general area.

Specimens examined .-- All specimens mentioned herein are from the Moore Collection at Occidental College, unless specified as otherwise: A group of 95 specimens of macrolopha and of diademata; 7 specimens from Cerro Potosí, Nuevo León, which are nearer diademata than azteca; 3 specimens from eastern Michoacán, which have bluer crests than purpurea, are best classified as that race; 8 specimens from west central Michoacán, the topotypical series of purpurea, mentioned in the preceding paragraph; the following specimens of coronata, 4 April breeding birds from Xichu, Guanajuato; 2 specimens (U.S. Nat. Mus.) from Las Vigas and Mirador, Veracruz, near the Davis-designated type locality of coronata; 7 specs. from Hidalgo (4 from the Brodkorb-designated type locality of Real del Monte and 3 from El Mineral del Chico); 6 specimens from La Puerto southwest of Mt. Orizaba consisting of intergrades, 3 of them nearer coronata, 1 with a much lighter blue crest similar to low altitude birds of central Guerrero, 1 with the azetca black crest and 1 in between; 1 black-crested individual from El Venerable, Puebla; 51 specimens of intergrades between teotepecensis and ridgwayi (nearer the former) from the lower mountains (5000 to 7000 feet) of southentral Guerrero. 16 specimens constituting the topotypical series of C. s. teotepecensis from Mt. Teotepec, Guerrero; 39 intergrades teotepecensis x ridgwayi, from Chiapas (Teopisca, Ciudad Las Casas, Volcán Tacaná), 4 specimens of C. s. ridgwayi from Alto Cantoral. Honduras.